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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/189,099	11/09/1998	BENNY RITZEN	34648-415	5118

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ERICSSON INC.  
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EXAMINER

CRAVER, CHARLES R

ART UNIT	PAPER NUMBER
2682	

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/189,099

Applicant(s)

RITZEN ET AL

Examiner

Charles R. Craver

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 January 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-17 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6,11,18,19,21 and 27 is/are rejected.
- 7) ☒ Claim(s) 3,5,7-10,20 and 22-26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 November 1998 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 6, 11, 18, 19, 21 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanai in view of Kojima.

**Claims 1, 18.** Kanai teaches a method for improving speech quality in a cellular communications network, said method comprising the steps of

selecting a cell from a plurality of cells forming the cellular communications network (col. 3 lines 55-65);

evaluating a first plurality of mobile reports received from mobile terminals located within a cell (col. 8 lines 49-56);

determining, in response to evaluating a plurality of mobile reports, a speech quality value within a portion of the cell (col. 8 line 66 to col. 9 line 5). Such would inherently occur in a border area if that is the area where the mobile stations are residing.

Kanai discloses means for decreasing or increasing the portion of the cell (col. 8 lines 21-26) and comparing quality for increasing and decreasing the cell. Kanai does not specifically mention comparing the communication quality to a predetermined lower or upper threshold values to decrease or increase the portion of the cell.

However, Kojima teaches means for evaluating signal quality and comparing with a prescribed threshold value. Therefore, it would have been obvious to one of ordinary skill in the art to modify Kanai by Kojima, by adding means for comparing evaluated transmission quality with a prescribed threshold values in order to optimize communications reliability by providing seamless handoff.

**Claims 2, 4, 19 and 21.** Kanai as modified by Kojima teaches the method of Claim 1, wherein

said step of decreasing or increasing the portion of the cell further includes adjusting at least one border offset parameter to decrease or increase a size of the portion of the cell (col. 8 lines 27-41).

**Claim 6.** Kanai as modified by Kojima does not mention the method of Claim 1, wherein said portion of the cell further includes a cell border area or a section of the cell border area, however, this is inherent in the system as shown above with respect to claim 1.

**Claims 11, 27.** allocating a channel during a handover on a BCC used within the interfering cell to improve the speech quality value in the cell is inherent in IS-95 systems.

***Allowable Subject Matter***

Claims 12-17 are allowed.

Claims 3, 5, 7-10, 20, 22-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 3 and 5. The prior art fails to teach the method of Claim 1, wherein said step of decreasing or decreasing the portion of the cell further includes adjusting a hierarchical cell structure threshold value of the cell to increase or decrease handovers of ongoing calls to another cell in a different layer of the cellular communications network.

Claim 7. the prior art fails to teaches the method of Claim 1, further comprising the steps of determining an interfering cell from the plurality of cells, said interfering cell causes interference within said cell, which is inherent in the system; evaluating a second plurality of mobile reports; and decreasing a portion of the interfering cell to improve the speech quality value in the cell (col. 10 lines 21-41).

Claim 10. The prior art fails to teach the method of Claim 7, wherein said step of decreasing a portion of the interfering cell further includes adjusting a hierarchical cell structure threshold value of the interfering cell to increase handovers of ongoing calls to another cell in a different layer of the cellular communications network, said portion of the interfering cell includes a cell border area or a section of the cell border area.

Claims 20 and 22. The prior art fails to teach the cellular communications network of Claim 18, wherein said means for decreasing the portion of the cell further includes means for adjusting a hierarchical cell structure threshold value of the cell to increase handovers of ongoing calls to another cell in a different layer of the cellular communications network.

Claim 26. The prior art fails to teach the cellular communications network of Claim 23,

wherein said means for decreasing the portion of the interfering cell further includes means for adjusting a hierarchical cell structure threshold value of the interfering cell to increase handovers of ongoing calls to another cell in a different layer of the cellular communications network.

Claim 12. The prior art fails to teach a method for improving speech quality in a cellular communications network, said method comprising the steps of selecting a cell from a plurality of cells forming the cellular communications network; determining, in response to receiving first plurality of mobile reports, an average speech quality value of the portion of the cell; dynamically changing the portion of the cell by decreasing the portion when a lower threshold exceeds the average speech quality value, and increasing the portion when the average speech quality value exceeds an upper threshold; determining an interfering cell from the plurality of cells, said interfering cell causes interference within said cell; receiving a first plurality of mobile reports from a first transceiver located in the cell and from a corresponding number of first mobile terminals located in a portion of the cell; receiving a second plurality of mobile reports from a second transceiver located in the interfering cell and from a corresponding number of second mobile terminals located in the interfering cell; decreasing a portion of the interfering cell to improve the average speech quality value in the cell, said portion of the interfering cell including a cell border area or a section of the cell border area.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles R. Craver whose telephone number is 571-272-7849. The examiner can normally be reached on M-F 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on 571-272-7868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cc  
July 11, 2005

  
CHARLES CRAVER  
PRIMARY EXAMINER